

#2

OIPE

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/911,513

DATE: 08/01/2001  
 TIME: 17:10:22

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4 <110> APPLICANT: Harberd, Nicholas P  
 5 Peng, Jinrong  
 6 Carol, Pierre  
 7 Richards, Donald E  
 9 <120> TITLE OF INVENTION: Nucleic acid encoding GAI gene of Arabidopsis thaliana  
 11 <130> FILE REFERENCE: 620-157  
 C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/911,513  
 14 <141> CURRENT FILING DATE: 2001-07-25  
 16 <150> PRIOR APPLICATION NUMBER: US 09/117,853  
 17 <151> PRIOR FILING DATE: 1998-08-12  
 19 <150> PRIOR APPLICATION NUMBER: PCT/GB97/00390  
 20 <151> PRIOR FILING DATE: 1997-02-12  
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 23 <151> PRIOR FILING DATE: 1996-02-12  
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 37 agattcttca ccttcccaaa taaagcaaaa ctagatccg acattgaagg aaaaaccttt 180  
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 41 gcttgaagtt atgatgtcta atgttcaaga agacgatctt tctcaactcg ctactgagac 420  
 42 tgttcaactat aatccggcgg agctttacac gtggcttgat totatgctca ccgaccttaa 480  
 43 tcttccgtcg tctaaccgag agtaacgatct taaagctatt cccggtgacg cgatttctca 540  
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63 tatgcttttg gctctgttca acggcggtga gggttatcgg gtggaggaga gtgacggctg 1740
64 tctcatgttg ggttggcaca cacgaccgct catagccacc tcggcttgga aactctccac 1800
65 caattagatg gtggctcaat gaattgatct gttgaaccgg ttatgatgat agatttccga 1860
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82 35 40 45
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85 50 55 60
87 Ser Gln Leu Ala Thr Glu Thr Val His Tyr Asn Pro Ala Glu Leu Tyr
88 65 70 75 80
90 Thr Trp Leu Asp Ser Met Leu Thr Asp Leu Asn Pro Pro Ser Ser Asn
91 85 90 95
93 Ala Glu Tyr Asp Leu Lys Ala Ile Pro Gly Asp Ala Ile Leu Asn Gln
94 100 105 110
96 Phe Ala Ile Asp Ser Ala Ser Ser Ser Asn Gln Gly Gly Gly Gly Asp
97 115 120 125
99 Thr Tyr Thr Thr Asn Lys Arg Leu Lys Cys Ser Asn Gly Val Val Glu
100 130 135 140
102 Thr Thr Thr Ala Thr Ala Glu Ser Thr Arg His Val Val Leu Val Asp
103 145 150 155 160
105 Ser Gln Glu Asn Gly Val Arg Leu Val His Ala Leu Leu Ala Cys Ala
106 165 170 175
108 Glu Ala Val Gln Lys Glu Asn Leu Thr Val Ala Glu Ala Leu Val Lys
109 180 185 190
111 Gln Ile Gly Phe Leu Ala Val Ser Gln Ile Gly Ala Met Arg Lys Val
112 195 200 205
114 Ala Thr Tyr Phe Ala Glu Ala Leu Ala Arg Arg Ile Tyr Arg Leu Ser
115 210 215 220
117 Pro Ser Gln Ser Pro Ile Asp His Ser Leu Ser Asp Thr Leu Gln Met
118 225 230 235 240
120 His Phe Tyr Glu Thr Cys Pro Tyr Leu Lys Phe Ala His Phe Thr Ala
121 245 250 255
123 Asn Gln Ala Ile Leu Glu Ala Phe Gln Gly Lys Lys Arg Val His Val
124 260 265 270
126 Ile Asp Phe Ser Met Ser Gln Gly Leu Gln Trp Pro Ala Leu Met Gln
127 275 280 285
129 Ala Leu Ala Leu Arg Pro Gly Gly Pro Pro Val Phe Arg Leu Thr Gly

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136      325      330      335
138 Arg Gly Phe Val Ala Asn Thr Leu Ala Asp Leu Asp Ala Ser Met Leu
139      340      345      350
141 Glu Leu Arg Pro Ser Glu Ile Glu Ser Val Ala Val Asn Ser Val Phe
142      355      360      365
144 Glu Leu His Lys Leu Leu Gly Arg Pro Gly Ala Ile Asp Lys Val Leu
145      370      375      380
147 Gly Val Val Asn Gln Ile Lys Pro Glu Ile Phe Thr Val Val Glu Gln
148 385      390      395      400
150 Glu Ser Asn His Asn Ser Pro Ile Phe Leu Asp Arg Phe Thr Glu Ser
151      405      410      415
153 Leu His Tyr Tyr Ser Thr Leu Phe Asp Ser Leu Glu Gly Val Pro Ser
154      420      425      430
156 Gly Gln Asp Lys Val Met Ser Glu Val Tyr Leu Gly Lys Gln Ile Cys
157      435      440      445
159 Asn Val Val Ala Cys Asp Gly Pro Asp Arg Val Glu Arg His Glu Thr
160      450      455      460
162 Leu Ser Gln Trp Arg Asn Arg Phe Gly Ser Ala Gly Phe Ala Ala Ala
163 465      470      475      480
165 His Ile Gly Ser Asn Ala Phe Lys Gln Ala Ser Met Leu Leu Ala Leu
166      485      490      495
168 Phe Asn Gly Gly Glu Gly Tyr Arg Val Glu Glu Ser Asp Gly Cys Leu
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181 <213> ORGANISM: Arabidopsis thaliana
183 <400> SEQUENCE: 3
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186 tttagatcca tctctgaaaa aaaaccaacc atgaagagag atcatcatca tcatcatcaa 180
187 gataagaaga ctatgatgat gaatgaagaa gacgacggta acggcatgga tgttgctcag 240
188 aaactcgagc agcttgaagt tatgatgtct aatgttcaag aagacgatct ttctcaactc 300
189 gctactgaga ctgttcacta taatccggcg gagctttaca cgtggcttga ttctatgctc 360
190 accgacctta atcctccgtc gtctaaccgc gactacgata ttaaagctat tcccgggtgac 420
191 gcgattctca atcagttcgc tatcgattcg gcttcttcgt ctaaccaagg cggcgaggga 480
192 gatacgtata ctacaaacaa gcggttgaaa tgctcaaacg gcgtcgtgga aaccaccaca 540
193 gcgacggctg agtcaactcg gcatgttgtc ctggttgact cgcaggagaa cgggtgtgcgt 600
194 ctcgttcacg cgtttttggc ttgcgctgaa gctgttcaga aggagaatct gactgtggcg 660
195 gaagctctgg tgaagcaaat cggattotta gctgtttctc aaatcggagc tatgagaaaa 720
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202 gaggcgattc acgttgagtt tgagtacaga ggatttgtgg ctaacacttt agctgatctt 1140
203 gatgcttcga tgcttgagct tagaccaagt gagattgaat ctgttgcggt taactctgtt 1200
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205 aatcagatta aaccggagat tttcactgtg gttgagcagg aatcgaacca taatagtccg 1320
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226               35               40               45
228 Gln Leu Ala Thr Glu Thr Val His Tyr Asn Pro Ala Glu Leu Tyr Thr
229   50               55               60
231 Trp Leu Asp Ser Met Leu Thr Asp Leu Asn Pro Pro Ser Ser Asn Ala
232   65               70               75               80
234 Glu Tyr Asp Leu Lys Ala Ile Pro Gly Asp Ala Ile Leu Asn Gln Phe
235               85               90               95
237 Ala Ile Asp Ser Ala Ser Ser Ser Asn Gln Gly Gly Gly Gly Asp Thr
238               100              105              110
240 Tyr Thr Thr Asn Lys Arg Leu Lys Cys Ser Asn Gly Val Val Glu Thr
241               115              120              125
243 Thr Thr Ala Thr Ala Glu Ser Thr Arg His Val Val Leu Val Asp Ser
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246 Gln Glu Asn Gly Val Arg Leu Val His Ala Leu Leu Ala Cys Ala Glu
247   145              150              155              160
249 Ala Val Gln Lys Glu Asn Leu Thr Val Ala Glu Ala Leu Val Lys Gln
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253               180              185              190
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259   210              215              220
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## RAW SEQUENCE LISTING

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310 35 40 45
312 Gln Leu Ala Thr Glu Thr Val His Tyr Asn Pro Ala Glu Leu Tyr Thr
313 50 55 60
315 Trp Leu Asp Ser Met Leu Thr Asp Leu Asn Pro Pro Ser Ser Asn Ala
316 65 70 75 80
318 Glu Tyr Asp Leu Lys Ala Ile Pro Gly Asp Ala Ile Leu Asn Gln Phe
319 85 90 95

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VERIFICATION SUMMARY

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